

A Medicine with Alkaloids New Information about the Biology and Importance of Plants

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Annotation: The demand for medicinal plants is growing. Therefore, the study of medicinal plants, the study of their effects on diseases, the preparation of medicines from them is one of the most important topics. This article provides the latest information on the cultivation of medicinal plants, the impact of medicinal plants on diseases and the preparation of medicines from them in medicine.

Keywords: Medicinal plants, alkaloids, leaves, flowers, fruits, seeds, glycosides, ether.

Medicinal plants are used to treat people and animals, to prevent disease, and in the food, perfume, and cosmetics industries. It is estimated that there are 10,000 to 12,000 species of medicinal plants in the world. The chemical and pharmacological properties of more than 1,000 plant species have been studied. There are more than 700 species of medicinal plants in Uzbekistan. Of these, about 120 species of plants that grow naturally and are cultivated are used in scientific and folk medicine. About 40-47% of the drugs used in medicine today are derived from plant raw materials. [1-4] Plants are living natural chemical laboratories with complex structures capable of forming complex organic substances or compounds from simple inorganic substances. Dried herbs, buds, roots, rhizomes, rhizomes, bulbs, bark, leaves, flowers, buds, fruits (seeds), seeds, sap, syrup, stone, essential oil and others are used as medicinal plants.

There are two different classifications of medicinal plants: 1) depending on the composition of the active substance - alkaloid, glycoside, essential oil, vitamin; 2) depending on the pharmacological indications - sedatives, analgesics, hypnotics, affecting the cardiovascular system, stimulating the central nervous system, lowering blood pressure. The active substances of medicinal plants are alkaloids, various glycosides (anthraglycosides, cardiac glycosides, saponins, etc.), flavonoids, coumarins, astringents and mucous membranes, essential oils, vitamins, dyes, enzymes, phytoncides, polysaccharides, starch, proteins, starch. substances, fats and fatty acids and other compounds. [5-8]

The effects of medicinal plants on the body depend on the amount of chemical compounds they contain. These compounds accumulate in different amounts in parts of the plant. The period of high potency and quality of the drug coincides with the beginning of their flowering and fertilization period. Medicinal substances accumulate in the buds, leaves or stems of some plants, in the flowers or fruits of some plants, and in the roots or bark of some plants. Therefore, the part of the plant that is mostly rich in biologically active substances is harvested. The roots, rhizomes, bulbs, and stems of plants are usually harvested in the late fall or early spring, when the plant is dormant. The fruits and seeds of the plant are harvested when ripe, as they are rich in medicinal substances at this time. Freshly harvested medicinal plant products contain up to 85% moisture

in the surface organs and up to 45% in the roots. If this moisture is not removed (by drying), the plant will rot, the drug will break down and become unusable. [9-11]

Medicinal herbs have been used to treat diseases since ancient times. Some 3,000 to 4,000 years ago, works on medicinal plants were written in India, China, and ancient Egypt. In the East, especially in Central Asian folk medicine, it is treated with herbs. On the use of medicinal plants for medical purposes, Abu Ali Ibn Sina's *Kitab al-Qanun fit tib* provides information on the medicinal properties of about 476 plants and the methods of their use. Nowadays, the variety of medicinal plants has increased, and folk medicine has enriched it with medicinal plants. More than medicinal plants, pomegranate, bitter gourd, almond, medicinal rosemary, walnut, jaw, zubturm, incense, rose hips, ammonqora, pistachio tree, sachratki, chayot, shildirbosh, shirinmiya, yalzik, yaloq, togaq, yantak. qoqiyot and others. The alkaloids pachycarpine are used in the treatment of acne, psoralen in the treatment of acne, garmin in incense, anabazine in feverfew, galantamine in feverfew, and spherophysin in alder. An extract of worm-driving pelterin is prepared from pomegranate peel. Medicinal herbs are expectorants and emollients, jaw-dropping drugs are used to stop bleeding, pistachios and tea-pills are used to treat gastrointestinal diseases. S.Q. The Tashkent Pharmaceutical Plant named after Islombekov produces a variety of medicines from medicinal plants grown and cultivated in Uzbekistan. The Institute of Plant Chemistry of the Academy of Sciences of Uzbekistan plays an important role in finding and extracting alkaloids from medicinal plants. More than 4,000 different organs of plants have been studied at the institute to obtain alkaloids, and about 1,000 natural compounds have been isolated from them. On this basis, more than 20 valuable drugs, such as cytisine and galantamine, have been developed and introduced into medicine. [12-14] The most dangerous was the creation of the "Bile Driver Khojimatov Collection", which is made from ecologically clean, highly effective medicinal plant raw materials in the treatment of hepatitis, and this collection was approved for use in scientific medicine. Also, the Department of Botany of SamSU, Tashkent State Pharmaceutical Institute is studying the technology of growing medicinal plants. In Tashkent, Namangan, Jizzakh, Samarkand, Kashkadarya, Surkhandarya regions and Khorezm Mamun Academy there are special farms growing medicinal plants.

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